

SCIENCE

Published by the **American Association for the Advancement of Science (AAAS)**, *Science* serves its readers as a forum for the presentation and discussion of important issues related to the advancement of science, including the presentation of minority or conflicting points of view, rather than by publishing only material on which a consensus has been reached. Accordingly, all articles published in *Science*—including editorials, news and comment, and book reviews—are signed and reflect the individual views of the authors and not official points of view adopted by the AAAS or the institutions with which the authors are affiliated.

The American Association for the Advancement of Science was founded in 1848 and incorporated in 1874. Its objectives are to further the work of scientists, to facilitate cooperation among them, to foster scientific freedom and responsibility, to improve the effectiveness of science in the promotion of human welfare, to advance education in science, and to increase public understanding and appreciation of the importance and promise of the methods of science in human progress.

Membership/Circulation

Director: Michael Spinella

Fulfillment: Marlene Zendell, *Manager*; Mary Curry, *Member Service Supervisor*; Pat Butler, Helen Williams, Laurie Baker, *Member Service Representatives*

Promotions: Dee Valencia, *Manager*; Hilary Baar, Angela Mumeka, *Coordinators*

Research: Kathleen Markey, *Manager*; Robert Smariga, *Assistant*

Financial Analyst: Jacquelyn Roberts

Administrative Assistant: Nina Araujo de Kobes
Science Member Services

Marion, Ohio: 800-347-6969;

Washington, DC: 202-326-6417

Other AAAS Programs: 202-326-6400

Advertising and Finance

Associate Publisher: Beth Rosner

Advertising Sales Manager: Susan A. Meredith

Recruitment Advertising Manager: Janis Crowley

Advertising Business Manager: Deborah Rivera-Wienhold

Finance: Leslie Gelder, *Manager*

Marketing Manager: Laurie Hallowell

Traffic Manager: Tina Turano

Recruitment: Michele Pearl, *Operations Manager*; Dan Moran, *Traffic Manager*; Debbie Cummings, Celeste Wakefield, Angela Wheeler, *Sales*

Marketing Associate: Allison Pritchard

Reprints Manager: Corrine Harris

Permissions Manager: Arlene Ennis

Sales Associate: Carol Maddox

ADVERTISING SALES: East Coast/E. Canada: Richard Teeling, 201-904-9774, FAX 201-904-9701 • Southeast:

Mark Anderson, 305-856-8567, FAX 305-856-1056 •

Midwest: Donald Holbrook, 708-516-8882, FAX 708-516-

8883 • West Coast/W. Canada: Neil Boylan, 415-673-

9265, FAX 415-673-9267 • UK, Scandinavia, France,

Italy, Belgium, the Netherlands: Andrew Davies, (44)

457-838-519, FAX (44) 457-838-898 • Germany/

Switzerland/Austria: Tracey Peers, (44) 270-760-108,

FAX (44) 270-759-597 • Japan: Mashy Yoshikawa, (3)

3235-5961, FAX (3) 3235-5852

Recruitment: 202-326-6555, FAX 202-682-0816

European Recruitment: AnneMarie Vis, (44) 0223-

302067, FAX (44) 0223-302068

Send materials to *Science* Advertising, 1333 H Street, NW, Washington, DC 20005.

Information for Contributors appears on pages 40–42 of the 1 January 1993 issue. Editorial correspondence, including requests for permission to reprint and reprint orders, should be sent to 1333 H Street, NW, Washington, DC 20005.

LETTERS

NIH Support for Graduate Students

I believe the National Institutes of Health move to cut back on tuition aid to graduate schools (*ScienceScope*, 23 July, p. 415) is a step in the right direction. The ultimate goal should be to eliminate wholesale tuition waivers and stipends as a major incentive for entering graduate school. Such a course of action would be in the best interests of future scientists and perhaps the future of science. The present system tends to shield students from the prospects (or lack thereof) of eventual employment. In other words, it encourages students to enter graduate school for the wrong reasons. The supply of scientists should be driven by the demand for scientists, not the demand for graduate students.

Some people would argue that ending subsidies to graduate science education would lead to a shortage of scientists. I disagree. What it would lead to is a shortage of scientists at cheap wages—certainly not a catastrophe for anyone. After all, no one seems to worry about a shortage of doctors or lawyers because they have to finance their own education!

Graduate education in science should return to being what it purports to be: job training, not the job itself.

Jay Hegde

Department of Neurobiology and Anatomy,
University of Texas Health Sciences Center,
Houston, TX 77030

ties, such as the one proposed in the recently published NCRR Request for Applications; cell culture centers, such as those funded through NCRR's Biological Models and Materials Research Program; animal colonies, such as those supported by NCRR's Comparative Medicine Program; and synchrotrons and other expensive equipment, such as those in NCRR's Biomedical Research Technology Centers (BRTCs). These are all evaluated at least every 5 years, as Brown suggests.

Brown correctly cites the high costs of clinical trials. NCRR is combating these costs through a network of 72 clinical centers around the country that are available to researchers with approved protocols. By paying for a dedicated clinical research unit, including dietitians, nurses, and biostatisticians, NCRR is reducing the costs of the individual research grants while ensuring that patients and researchers have the best care available.

In short, NCRR's programs are designed to be cost-effective, multidisciplinary approaches to biomedical research. Readers who want more information about NCRR's resources and how to use them can write to the Office of Science and Health Reports, NCRR, 5333 Westbard Avenue, Room 10A15, Bethesda, MD 20892.

Judith L. Vaitukaitis

National Center for Research Resources,
National Institutes of Health,
Bethesda, MD 20892

NCRR Funding Mechanisms

Donald D. Brown and *Science* readers should know that several of the suggestions to improve funding for the National Institutes of Health (NIH) that he makes in his Policy Forum "NIH funding mechanisms need appraisal" (2 July, p. 16) are currently supported by the National Center for Research Resources (NCRR).

His suggestion that "group grants should fund . . . the purchase of expensive, multi-user equipment that is shared by multiple, individually funded investigators in a single location" is an exact description of NCRR's Shared Instrumentation Grants, which fund equipment costing between \$100,000 and \$400,000 that is used by three or more Public Health Service-funded investigators.

His comment about the need for regional centers calls for transgenic mouse facili-

Environmental Hazards: Real or Exaggerated?

Philip H. Abelson's 23 July editorial "Toxic terror; phantom risks" (p. 407) rightly decries the exaggeration and hysteria over toxic risk. Unfortunately, in taking the side of the strident critics, he falls into the familiar trap of painting in black and white.

Abelson quickly slides by the toxic agents that have had a demonstrably adverse effect on human health. Tobacco is the most notorious; but asbestos, diethylstilbesterol (DES), MER/29, thalidomide, and lead come quickly to mind. Asbestos workers and their families, for example, are surely justified in their concerns about the hazards of occupational toxins.

Abelson also does not confront the uncertainty endemic to toxicity assessments. Toxicologic evidence of carcinogenicity is